Countermeasures Dispensing Systems

Airborne Chaff and Flare Dispensing System

Elbit Systems™ Land

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Elbit Systems Rokar chaff and flare dispensing systems are designed to counter advanced threats and provide reliable protection on a wide range of platforms, including combat aircraft, helicopters and transport aircraft. The lightweight and cost-effective countermeasure systems are integrated with electronic warfare (EW) sensors including missile warning systems (MWS) and radar warning receivers (RWR), for optimal response to IR and radar-guided missile threats. A range of countermeasure dispenser testers improve aircraft readiness and maintenance with fast, efficient and dependable flight-line safety and functionality checks.

Elbit Systems Rokar is a worldwide leader in development and production of electronic countermeasures dispensing systems with an extensive program of record and combat proven by leading air force users.

Featuring advanced technologies and market leading reliability, Elbit Systems Rokar countermeasure dispensing solutions designed to confront advanced treats by flexible dispensing options and meet evolving needs, offering unparalleled capabilities for aircraft and crew safety and enhanced survivability.

Electronic systems and testing solutions

Advanced Countermeasures Dispensing Systems (ACDS)

An airborne, computer-controlled self-defense system for chaff, flare and advanced decoy payloads, the ACDS can operate as a dispensing standalone system or integrated in electronic warfare (EW) suites. The MCDU compatible mini-control and display unit, provides a visual display of threats and generates an audio warning. The system interfaces with EW warning systems, aircraft avionics and controls. The ACDS can operate up to 32 “smart dispensers” of any type, including internal, dual and scab-on, and features a pod version with adjustable dispensing directions. The ACDS has a flexible interface to enable easy PFM programing to confront emerging treats. The ACDS is provided with a full ILS package.

Mini Control & Display Unit (MCDU)

The MCDU serves as a cockpit command and display panel to generate dispensing programs control and command the dispensing decoy payloads. It interfaces with the smart dispensers for sending dispensing commands and receiving dispenser’s decoy inventory status. The communication to the RWR/MWS is carried out via discrete lines communication.

Armament Control System (ACS)

The ACS operates, controls, releases, fires and jettisons weapons and stores carried by fixed and rotary-wing aircraft. Featuring two main subsystems - an armament interface unit (AIU) and weapon control panel - the ACS is available in multiple configurations and offers an optional aft weapon display panel for training purposes.

Armament Interface Unit (AIU)

The AIU handles all the safety critical requirements of the armament, providing the functions required to release, arm, control, operate or jettison weapons. The unit can be adapted as a station interface unit or a wing interface unit depending on aircraft configuration.

Weapon release or fire requires three independent actions. The system interfaces with both weight-on-wheels and wheels-up switches. Emergency jettison circuitry is independent of all other components and is implemented in hardware.

Smart Dispenser & Magazine

The Smart Dispenser consists of a built in smart dispensing module to generate firing pulses for ejecting the decoy payloads. It communicates with the MCDU via RS 422 link. Several Smart Dispensers can be controlled by the MCDU. Each Smart Dispenser caries a Magazine with a retaining plate. The Magazine consists of multiple rectangular storage compartments for 1″ x 1′′ x 8″ or 2″ x 1′′ x 8″ payloads. The retaining plate holds the payload cartridges and includes coding pines for installed payload type identification.

Smart Breech Plate Adapter (SBPA)

The SBPA (V2) is a self-contained "0" level functional tester used to perform (1) fire pulse amplitude and duration test (2) stray voltage absence test prior to payloads installation.

Countermeasure Dispenser Testers (CDT)

Countermeasure dispenser testers (CDTs) provide safe and effective performance of aircraft countermeasure dispensers. The AN/ALM-288, AN/ALM-293 and AN/ALM-294 self-contained and battery-powered flight-line CDTs are compatible with the dispensers used by the U.S. Air Force, U.S. Army, U.S. Navy and other armed forces around the world. Designed with a clear, direct user interface, the CDTs feature an alpha-numeric display of test results. The CDTs are delivered in a protective two-CDT case.

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Functional and Stray-Voltage Tester (FAST)

A self-contained, battery-powered flight-line tester with adapting cables, the functional and stray-voltage tester (FAST) performs rapid and reliable flight-line safety and functional checks of the weapon control system, improving aircraft readiness. The FAST features an alphanumeric display that provides operating instructions for system check and test results.

Modular ACDS Test Equipment (MATE)

A PC-based lower-level test bench, the modular advanced countermeasures dispensing system test equipment (MATE) runs automatic tests on the ACDS and generates reports based on test results. In automated mode, the system can perform a single line-replaceable unit test or a full system test. In hot mockup mode, the system generates all the avionics and other system signals that interface with the ACDS in the aircraft, monitors the signals from the ACDS to the avionics and analyzes the data. The modular system provides future growth capabilities for ACDS system extension.

Platforms with Elbit Systems Rokar installed products

Fighter aircraft	Helicopters	Trainers	Transport/VIP
F-16 Falcon	AH-64 Apache	FA-50	Gulfstream
F-16	AH-64D Long Bow	F-5 Tiger	C-130 Hercules
F-15 Eagle	AH-1 Cobra	PC-9 Pilatus	Boeing-707
F-15	CH-47 Chinook		Fokker-70
F-4 Phantom	CH-53		CN-235
MiG-21/F-7	CH-53 S. Stallion		KC-390
KFIR	UH-60 Black Hawk		C-130J
Harrier	EC-135		
Tornado ACDS Pod	EC-635		
Mirage	KHP		
SU-22 Fitter	Super Puma		
	Bell-212/412		
	AS 565-Panther		
	Mi-35 HIND		

Key Features

- Integrated EW sensors
- Threat-adaptive
- Combat-proven
- Small-form, lightweight systems
- Multiple configurations, easy to install
- Up to 4 mixed payload types in a magazine

Key Benefits

- Enhanced safety and high MTBF
- Cost-effective
- Easy operation and maintenance
- Easy installation, only two main LRU's
- Simultaneous firing from each magazine
- Friendly programming tool for MDF preparation

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